

U.S. PATENT APPLICATION  
FOR  
SYSTEM, METHOD AND COMPUTER  
PROGRAM PRODUCT FOR A  
MULTIFUNCTION TOOLBAR FOR INTERNET  
BROWSERS

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# SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR A MULTIFUNCTION TOOLBAR FOR INTERNET BROWSERS

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## RELATED APPLICATIONS

10 This application is a continuation in part of co-pending US Patent Application entitled  
Method and Apparatus for Collaborative Remote Link Management Using Group  
Sharable On-Line Bookmarks, filed on 09/24/99 under serial number 09/405,533, co-  
pending US Patent Application entitled System, Method and Article of Manufacture for  
Delivering Information to a User Through Programmable Network Bookmarks, filed on  
September 24, 1999 under serial number 09/406,009, and of co-pending U.S. Patent  
15 Application entitled System, Method, and Article of Manufacture for Generating a  
Customized Network User Interface, filed June 7, 2001 under serial number  
09/876,671, and which claims priority from Provisional U.S. Patent Application entitled  
System, Method, and Article of Manufacture for Generating a Customized Network  
User Interface, filed June 7, 2000 under serial number 60/209,873 and which are all  
20 incorporated herein by reference for all purposes.

## FIELD OF THE INVENTION

The present invention relates to user interfaces and more particularly to a new toolbar for adding functionality to Internet browsers.

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## BACKGROUND OF THE INVENTION

Information on the Internet exists in the form of hyperlinks that appear in different  
10 HTML pages. A news site for example may contain headlines that are hyperlinks to their detailed exposition. Similarly, a company's intranet may contain multiple pages with several hyperlinks on each.

Custom Internet portals to display web-centric information exist (e.g., myYahoo,  
15 myLycos etc.). These portals aggregate information from different HTML sources into one interface where it can be accessed through one interface. However, the possible number of sources from which information is aggregated is fairly minimal. In typical portals, the user chooses from pre-selected information collected from a pre-determined set of information sources. The user has no control over either the sources he/she gets  
20 the content from or the information that is harvested from those web-sites. Further, the user has very little control over how the information is presented.

For example, if the user is interested in Indian politics, Soccer, and Semiconductor High  
Tech companies, myYahoo allows the user to configure Yahoo's news source to filter  
25 through news on these topics. However, the user must take all this content strictly from Yahoo-selected content providers. This arrangement prohibits users from choosing not just the type of content but the source of the content as well. While, for example, a user may want to be able to receive world politics news from his two favorite Indian news dailies every morning, get his Hi-Tech news coverage from Red Herring and CNET,

and get sports news from Cricket.org and dailysoccer.com, access to all these sites through a prior art internet portal would be predicated on the Internet portal offering access to all of the particular site via that particular portal. This limitation forces the users to have access to only "popular" sources of information and effectively bars them from getting anything else.

What is needed is a method that allows the user to select and completely configure both the source and content that he/she wants on his/her own portal or habitat. Such customizable habitats and portals are described in copending U.S. Patent Application entitled SYSTEM, METHOD, AND ARTICLE OF MANUFACTURE FOR GENERATING A CUSTOMIZABLE NETWORK USER INTERFACE, filed June 7, 2001, and copending U.S. Patent Application entitled SYSTEM, METHOD, AND ARTICLE OF MANUFACTURE FOR WIRELESS ENABLEMENT OF THE WORLD WIDE WEB USING A WIRELESS GATEWAY filed June 16, 2000 under Serial Number 09/595,781, each of which is assigned to common assignee Clickmarks, Inc., each of which is herein incorporated by reference for all purposes.

One method for adding content to the habitat or portal described in the documents above required the user to open the habitat or portal and select an "add content" menu item which brought up an ActiveX window. The URL (or other address) of the desired website (or other content source) is entered into a field in the ActiveX window. When the website pops up, information from it is dragged into the habitat.

The present invention improves on the method of adding content to the habitat or portal by allowing a user to select content for a portal or habitat while surfing the web in a way that does not interrupt the surfing experience.

## SUMMARY OF THE INVENTION

A system, method and article of manufacture provide a multifunction toolbar for a web browser. The toolbar provides combined functionality in a heretofore unknown

5 manner. Further, the toolbar allows a user to interact with a portal while surfing the web in a way that does not substantially interrupt the user's surfing experience.

According to the present invention, a toolbar is displayed over a web browser. The toolbar can thus be integrated with an existing web browser, or can be a "floating" toolbar, much like another window. The toolbar does not need to be "always on top" of

10 the toolbar, but can be made to be. The toolbar is linked to a portal of a user. The portal is for aggregating content (i.e., pointers to the content or the content itself) selected by the user for later output to the user. A bucket is presented on the toolbar.

The bucket can be in the form of a button on the toolbar, for example. The present invention recognizes when the user selects content on a website, which is displayed on

15 the web browser, and drops the content in the bucket. The user can do this by dragging and dropping the content onto the bucket. Note that "content" as used here can include any type of data, including video, audio, text, graphics, etc. The selected content is added to the portal. The content can be added to the portal via a link and/or can be stored on the system hosting the portal.

20 According to a preferred embodiment, a method for providing a multifunction toolbar for a web browser includes displaying a toolbar over a web browser. The toolbar includes a sign on button for allowing a user to sign on to a system. The toolbar links to a portal of a user upon the user signing in. Again, the portal is for aggregating content

25 selected by the user. Additional features are presented on the toolbar upon the user signing in.

One such feature is a bucket. The present invention recognizes that the user has selected content on a website displayed on the web browser and dropped the content in the bucket. The selected content is added to the portal.

5 Another feature is a customize button. A customization screen is opened upon selection of the customize button. Features of the toolbar can be manipulated using the customization screen. A headlines button can be displayed on the toolbar. The headlines of the portal are displayed on the web browser upon selection of the headlines button. The toolbar can also include an email button. Email messages of the user are  
10 displayed upon selection of the email button. The email messages can be displayed on the browser, or an email program can be opened upon selection of the email link.

Another feature is a bookmark button. Bookmarks are displayed upon selection of the bookmark button. Bookmarks are links to pre-specified content. Preferably, the  
15 bookmarks are stored on a remote network site. The toolbar can also includes a synchronize bookmark button. The bookmarks are synchronized upon selection of the synchronize bookmark button. By synchronizing bookmarks, this means that changes to the bookmarks made by the user are synchronized with the bookmarks stored on the remote network site.

20 Yet another feature of the toolbar is a search field. Search results are displayed upon entry of a search term in the search field and selection of a "Search" button. The toolbar can also include a color button, which allows the user to change the color of the toolbar upon selection of the color button. Note that the features described with respect  
25 to the preferred embodiment can also be used with the first embodiment described.

## BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be better understood when consideration is given to the following  
5 detailed description thereof. Such description makes reference to the annexed drawings  
wherein:

Figure 1 is a schematic diagram of a hardware implementation of one embodiment of  
the present invention;

10 Figure 2 illustrates a process for generating a customized network user interface  
according to one embodiment of the present invention;

15 Figure 3 is a flowchart of a process for allowing a user to customize an information  
portal according to one embodiment of the present invention;

Figure 4 depicts a default mode process for allowing selection and management of  
preferred content according to one embodiment of the present invention;

20 Figure 5 is a flowchart of an advanced mode process for allowing selection and  
management of preferred content according to an embodiment of the present invention;

Figure 6 is a flowchart depicting a process for tagging selected information contained in  
a web-page according to one embodiment of the present invention;

25 Figure 7 is a flow diagram of a process for tagging secure information contained in a  
web-page;

Figure 8 illustrates a toolbar displayed before a user logs in;

Figure 9 illustrates a toolbar after user has been successfully logged in;

Figure 10 illustrates the toolbar as can appear with respect to a web browser;

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Figure 11 is flow diagram depicting a process for providing a multifunction toolbar for a web browser according to one embodiment of the present invention; and

Figure 12 is a flow diagram of a process for providing a multifunction toolbar for a web browser according to a preferred embodiment of the present invention.

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## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

A preferred embodiment of a system in accordance with the present invention is

5 preferably practiced in the context of a personal computer such as an IBM compatible personal computer, Apple Macintosh computer or UNIX based workstation. A representative hardware environment is depicted in Figure 1, which illustrates a typical hardware configuration of a workstation in accordance with a preferred embodiment having a central processing unit **110**, such as a microprocessor, and a number of other  
10 units interconnected via a system bus **112**. The workstation shown in Figure 1 includes a Random Access Memory (RAM) **114**, Read Only Memory (ROM) **116**, an I/O adapter **118** for connecting peripheral devices such as disk storage units **120** to the bus **112**, a user interface adapter **122** for connecting a keyboard **124**, a mouse **126**, a speaker **128**, a microphone **132**, and/or other user interface devices such as a touch screen (not  
15 shown) to the bus **112**, communication adapter **134** for connecting the workstation to a communication network (e.g., a data processing network) and a display adapter **136** for connecting the bus **112** to a display device **138**. The workstation typically has resident thereon an operating system such as the Microsoft Windows NT or Windows 2000 Operating System (OS), the IBM OS/2 operating system, the MAC OS, or UNIX  
20 operating system. Those skilled in the art will appreciate that the present invention may also be implemented on platforms and operating systems other than those mentioned.

The present invention allows a user to create an information portal whose information sources and content is completely customizable. Note that "portal" as used herein can  
25 also refer to a habitat. Information on the Internet exists in the form of hyperlinks that appear in different HTML pages. A news site for example may contain headlines that are hyperlinks to their detailed exposition. Similarly, a company's intranet may contain multiple pages with several hyperlinks on each. In typical portals, the user chooses from a pre-determined set of information collected from a pre-determined set of information

sources. The user has no control over either the sources he/she gets the content from or the information that is harvested from those web-sites. Further, the user has very little control over how the information is presented.

- 5 Figure 2 illustrates a process 200 for generating a customizable network user interface. A management interface is provided in operation 202. The management interface allows a user to select and manage information that is displayed on an information screen and viewed by the user. The management interface includes information of at least one content source which can be selected. It should be noted that such information
- 10 can include such things as portions of web pages, links to web pages, images, active graphics, audio content or any other type of information. Such a content source can be a web page or any other content source. In operation 204, the user is further allowed to select portions of the information available in one or more of the content sources. The information selected from the content source may then be marked in operation 206.
- 15 The information selected from the content source may then be marked through various means, such as for example highlighting, dragging-and-dropping, selecting from a menu, menu-based tagging (R+click), and/or an action through an input device, such as a mouse, touchpad, etc.
- 20 In operation 208, such marked information is stored for subsequent retrieval in operation 212. The marked information can be output to the user via the information screen. Over time, the information that has been marked on the remote content source may change. To allow current and updated information to be presented to the user via the information screen, a check is performed in operation 210 to determine whether any
- 25 of the marked information has changed on the content source. Preferably, the check is performed periodically or upon occurrence of some event. The marked information is retrieved in operation 212. In operation 214, the marked information may then be retrieved manually or automatically from the content source and displayed on the information screen.

In one embodiment of the present invention, the information screen may include a plurality of different views pages or "views". Each view may contain at least one section or a "window" for displaying the marked information. Further, the user may be  
5 allowed to select, maximize, minimize, refresh and edit the content of the window.

In another embodiment of the present invention, the user may be allowed to share the views with other users such as via electronic mail or by permitting access to the views. As an option, the marked information may be presented on the information screen over  
10 a configurable number of days in the past. Further, the user may be allowed to "drag and drop" information of his/her choice from the customizing interface to the information screen. As mentioned above, desired information can also be added to the information screen through various means, such as for example highlighting, selecting  
15 from a menu, menu-based tagging (R+click), and/or an action through an input device, such as a mouse, touchpad, etc. The information may also be marked upon dropping the information in the information screen.

In still yet another embodiment, the step or act of marking the selected information may include determining an invariant descriptor of the selected information and/or of the  
20 tables, rows, columns, and/or cells comprising the selected information. The invariant descriptor may consist of a description of the location of the selected information within its source and of various distinguishing attributes of the sub-section(s) of the source that contain the selected information. Further, the step or act of checking for change of the marked information may include the steps or acts of determining whether the content of  
25 the marked information has changed and determining whether the format of the marked information has changed. As yet another option, the step or act of checking for change of the marked information may be performed at predetermined intervals.

Based upon the invariant descriptor, the selected information may be retrieved manually (i.e., by the user) or automatically and displayed in the appropriate views/windows of the customized information screen.

5 According to a preferred embodiment of the present invention, the user is presented with a page that contains the user's information of choice from an arbitrary number of different sources and presented in a completely customizable format. The page consists of different "views" where each view in turn contains multiple windows. The number of views and the number of windows in each view can be configured.

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Each particular window contains hyperlinks that have been selected by the user from web-sites of his/her choice. A window may for instance be dedicated for international news and could contain hyperlinks selected by the user from any number of web-sites of his/her choice. The user has complete freedom in selecting the source of his/her content (i.e. the web-site) and the content from that source (i.e. the hyperlinks).

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Figure 3 is a flowchart of a process 300 for allowing a user to customize an information portal according to one embodiment of the present invention. When the user wishes to add content, a web-page chosen by the user is presented in operation 302. In operation 20 304, the user is then allowed to select the headline or hyperlink of his/her choice and simply drags and drops it into his/her portal. From that point on, in operation 306, the content from that headline or hyperlink will be brought to the user's portal regularly. In operation 308, a check for any change or update of the content is made. If the content changes or is refreshed, the new content will be brought to the user. In operation 310, 25 the user is further allowed to edit the content of his/her portal at will by adding or deleting headlines, moving them from one window to another within a view or moving them to other windows in different views.

Another embodiment of the present invention includes the following parts: (a) An interface that displays the user customized information, (b) an interface that allows the user to select and manage the information of choice, (c) a mechanism for marking selected information contained in a web-page (d) a method for communicating that information to the backend servers that process and store that information, (e) a mechanism for the storage of the selected information (f) a mechanism for regularly retrieving selected information and (g) a mechanism for checking for change in the content or the format of the selected sources of information.

10 The user interface to display preferred content.

The user interface comprises “views”, each of which contain multiple windows. The number of windows in a view is completely configurable. The user may create or delete as many views as he/she may desire. This user interface allows a user to cleanly categorize related information within individual windows and views. This provides a user one place to access all of his/her favorite information and content from the web. This content includes (but is not limited to) (a) News and Information headlines (of all sorts) (b) Information about email, bank and other accounts (c) Information about shopping and comparison of rates and prices (d) Graphs, Images, Sounds or any other media.

This content is presented to the user with an ability to edit and manage it intuitively and interactively. Some of the features of the management process include (a) a presentation of the user’s selected information over a configurable number of days in the past (b) an ability to select, maximize, minimize, refresh or edit the content of individual windows (c) to “publish” user’s views into a directory of views and (d) to share these views with other people by emailing them the views.

The interface for selection and management of preferred content.

The interface that allows the user to create his/her customized portal is based on an intuitive drag and drop capability. The user simply selects the sources or headlines of choice and drags and drops them into windows and views of choice. The drag and drop feature also makes customization very easy for the user, allowing quick compilation and management of their preferred content. There are two levels of selection and management provided, default and advanced.

Referring to Figure 4, in a default mode process 400 for allowing selection and management of preferred content according to one embodiment of the present invention, a user is presented with a set of web-sites or other sources of content in operation 402. In operation 404, the user is allowed to select a site and then drag and drop it into a window of choice. Once that is done, pre-selected content from that source is automatically added to the window in operation 406.

Figure 5 is a flowchart of an advanced mode process 500 for allowing selection and management of preferred content according to an embodiment of the present invention. In operation 502, a user is allowed to select a web-site from a list or specify its URL. A new window is presented in operation 504 that shows the selected web-site. In operation 506, the user is allowed to choose content of choice from the web-site and drag and drop it into a window of choice.

The mechanism for tagging selected information contained in a web-page.

Web-pages are created using HTML (Hyper Text Markup Language). The content in a web-page is formatted using a tabular format where each table is composed of individual cells distributed into a number of rows and columns. A table may contain other tables within its individual cells. The tagging of selected information within a web-page hinges upon assigning an address to each item of content within the web-

page. The addressing scheme takes into account the table(s), row(s), column(s) and cell(s) an item of content belongs to. An item of content can be identified by its address within a web-page and (ii) all the addressing schemes that take into account the table(s), row(s), column(s) and cell(s) an item of content belongs to. The addressing scheme works as follows:

The page is viewed to be composed of tables that may themselves contain other tables. The tables that are not contained in any other table (highest-level tables) are assigned identifying numbers starting from 1. Tables contained within the highest-level tables are assigned numbers that take into account the tables that contain them. If a table is not contained in any other table, then it may be assigned a number, say 3. If table number 3 contains two tables, then they will be assigned numbers 3-1 and 3-2 respectively. Each table is composed of a unique number of rows and columns. Each item of content resides within a cell that belongs to a specific row and column of a table. The complete address of an item of content is then the unique identifier of the table that contains it and the position of that item of content within that table.

In addition to the address, specific information about different items of content, the attributes of the items or of their locations within the source page may also be used. For example, HTML tables have properties in terms of their headers, numbers of columns, the fonts used in various parts, border widths etc. The attributes for tables are captured in exactly the same manner as the address indicated previously. Together, address and attribute information can be used to select and mark user requested information. For example, an invariant descriptor is generated by a combination of the address and the attributes. The invariant descriptor is then stored.

Figure 6 is a flowchart depicting a process 600 for tagging selected information contained in a web-page. In operation 602, the invariant descriptor of user-selected content is determined, as set forth above. Once the invariant descriptor is determined, it

is converted in operation 604 into a hyperlink that contains the original content or a hyperlink to it, and its invariant descriptor. When a user drags and drops that selected content into a window of choice, that hyperlink and all of its associated information is sent through the window to the servers in operation 606, where it is entered into a database in operation 608.

This mechanism also allows a capture of configurable sections of a web-page, including individual words, lines, paragraphs.

In the case of secure information like email or bank accounts, the mechanism followed is shown in Figure 7, which is a flow diagram of a process 700 for tagging secure information contained in a web-page. First, in operation 702, forms are created to allow a user to log into their accounts. These forms consist of (a) Dynamic information (like the user name and password) which is captured during the session (b) Static information that is required by the remote account server which is stored in a database and retrieved when an account is selected. Using the dynamic and static information, the server logs into the remote server in operation 704. The account information is retrieved in operation 706 and, in operation 708, the account information is presented in a suitable and configurable format.

The mechanism for local storage or caching of selected content.

The selected information is cached or stored locally to enable a faster access. Once a web site is selected by a user, a copy of the site, including text and images, is kept locally in the servers. When any user requests a page that has been requested before, the cached copy is presented if the content of the site has not changed since the time the page was cached. The process is broken down into two: Simple and Customized addition of content:



Addition of Default content: The addition of default content proceeds as follows:

1. Once a site is selected, the backend identifies the headlines that have been pre-selected for that site.
2. The server queries the database and picks up the default headlines.
3. The headlines that are not included in the pre-selected content are not included.
4. The server contacts the ActiveX control that constitutes the administrative page and communicates the selected headlines.
5. The selected headlines are visible in the ActiveX control and are also accessible to the main user interface.

Addition of Customized content: In the case of addition of customized content, the process is as follows:

1. The user selects a hyperlink by dragging and dropping them into the ActiveX control on the Administrative page.
2. The hyperlink and related information are sent to the servers. The information includes (a) the content of the link, (b) its location on the page, (c) the URL of the site, (d) the identity of the window and the view it has been dropped into and (e) the user name.
3. Once the link has been selected, it is added to the database and is accessible to the main user interface.

The mechanism for communication of selected information to the backend servers.

Once a hyperlink is dropped into a window, information is passed by the window to the backend servers. This information includes the address of the hyperlink, as defined above. In addition, the information about the window and the view containing that

window is also sent to the server. This information is then used by scripts to generate the front page in HTML.

The mechanism for regular retrieval of preferred content from selected sites.

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The power of the current invention is that refreshed content is retrieved from the selected sources of information as they are updated. The sources of information, or web sites, selected by users are cached locally. The web pages stored locally are categorized according to the number of times they are requested. High request sites are retrieved once every few hours, for example.

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The mechanism to check for a change of content or format in the selected sources of information.

15 Once a page has been requested by a user, it is retrieved on a regular basis. There are two checks performed to find out a change in the information in the page. The first involves a change in the content of the page and the second a change in the format in which the content is presented.

20 Change in a page's content:

Every time a page is retrieved, a copy is kept locally on servers. Once a page is automatically retrieved, the content from the newly retrieved version of the page is compared to the content from a previous version of the page. If there is a change in the content, then the updated content is retrieved.

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A change in the format of the content:

The formatting of the content in a page is stored in terms of a complete addressing scheme for the page, which specifies the breakdown of the page into its sub-sections. Once there is a change in the formatting of the page, then the relations of different sub-sections of the page to their parent sections change. A mechanism is implemented that keeps track of the number of differences between the format of a previously stored version of the page and the newly retrieved version. An alert is sent to the users if the number of differences is greater than a configurable number.

### **Toolbar**

According to another embodiment of the present invention, a toolbar to be used with a web browser is provided that provides combined functionality in a heretofore unknown manner. Further, the toolbar allows a user to interact with a portal while surfing the web in a way that does not substantially interrupt the user's surfing experience.

Figure 8 illustrates the toolbar **800** before a user logs in, according to a preferred embodiment of the present invention. A portal button **802** takes a user to his or her portal upon selection. The portal button can also be programmed to link to another data site, such as the user's homepage or any other designated site. Selection of the sign on button **804** opens the sign on dialog for the user to enter a user name and password. Further, if the user has not registered with the portal, the sign on dialog can allow the user to sign up as a new user. Preferably, the user is directed to a portal registration page.

With continued reference to Figure 8, the customize button **806** opens a pop-up menu which displays all the features of the toolbar upon selection of the customize button. Features of the toolbar can be manipulated using the menu, or customization screen, and the user can enable or disable any features he/she may prefer. The help button **808**

provides access to help information, and may call help information to be displayed on the web browser.

Figure 9 illustrates the toolbar 900 after user has been successfully logged in, according to a preferred embodiment. The portal button is again displayed. The bookmark button 902 displays a user's bookmark information, such as by pop-up menu or window.

Bookmarks are displayed upon selection of the bookmark button. Bookmarks are links to pre-specified content. Preferably, the bookmarks are stored on a remote network site.

The toolbar can also includes a synchronize bookmark button. The bookmarks are synchronized upon selection of the synchronize bookmark button. By synchronizing bookmarks, this means that changes to the bookmarks made by the user are synchronized with the bookmarks stored on the remote network site. Bookmarking functions are described in more detail in co-pending US Patent Application entitled

Method and Apparatus for Collaborative Remote Link Management Using Group Sharable On-Line Bookmarks, filed on 09/24/99 under serial number 09/405,533, and co-pending US Patent Application entitled System, Method and Article of Manufacture for Delivering Information to a User Through Programmable Network Bookmarks, filed on 09/24/99 under serial number 09/406,009, each of which is assigned to common assignee Clickmarks, Inc. and which are herein incorporated by reference.

The toolbar can also include an email button 904. Email messages of the user are displayed upon selection of the email button. The email messages can be displayed on the browser, by pop-up menu, or an email program can be opened upon selection of the email link. Preferably, a notification is presented when a user has email messages in general (read and unread), unread email messages, and/or upon recognition of arrival of an email message. In the latter case, a check for email can be performed at predetermined or configurable intervals.

A headlines button **906** can be displayed on the toolbar. Its selection opens a separate bar or window to display headlines preselected by the user, administrator, or by any person or mechanism. Preferably, selection of the headlines button opens a separate bar or window that displays a scrolling list of headlines selected by the user using the portal. The headlines can include links to portions of or the full stories associated with the headlines. Selecting any of the headlines opens the contents of the associated story on the web browser, in another window, etc. The headlines of the portal can be displayed on the web browser or separate bar upon selection of the headlines button.

Yet another feature of the toolbar is a search field **908**. Search results are displayed upon entry of a search term in the search field and selection of the search button **910**. The search menu **912** allows a user to select a resource to search, such as other users' bookmarks or a search engine.

A bucket **914** is also provided on the toolbar, which enables a user to drag and drop any information they like during surfing. The user drags content on a website displayed on the web browser and drops it in the bucket. The selected content is automatically added to the portal, as described above in the description of the portal.

The toolbar also includes a color button **916**, which allows the user to change the color of the toolbar upon selection of the color button. A color screen is displayed, which presents a plurality of colors from which the user can select. The user may also be allowed to enter a specified Red-Green-Blue (RGB) hex value if their choice is not in the selection palette.

Figure **10** illustrates the toolbar as can appear with respect to a web browser **1000**. Note that the toolbar is preferably positioned at the bottom of the browser window, but can be positioned automatically, or at user direction, to any other portion of the browser window or display area of the user's viewing screen.

Figure **11** is flow diagram depicting a process **1100** for providing a multifunction toolbar for a web browser according to one embodiment of the present invention. In operation **1102**, a toolbar is displayed over a web browser. The toolbar does not need to be “always on top” of the toolbar, but can be made to be. The toolbar is linked to a portal of a user in operation **1104**. Portals are described above. A bucket is presented on the toolbar in operation **1106**. The bucket can be in the form of a button on the toolbar, for example. In operation **1108**, the present invention recognizes when the user selects content on a website, which is displayed on the web browser, and drops the content in the bucket. The user can do this by dragging and dropping the content onto the bucket. Note that “content” as used here can include any type of data, including video, audio, text, graphics, etc. The selected content is added to the portal in operation **1110**. The content can be added to the portal via a link and/or can be stored on the system hosting the portal.

Figure **12** is a flow diagram of a process **1200** for providing a multifunction toolbar for a web browser according to a preferred embodiment of the present invention. In operation **1202**, a toolbar is displayed over a web browser. The toolbar includes a sign on button for allowing a user to sign on to a system. In operation **1204**, the toolbar links to a portal of a user upon the user signing in. Again, the portal is for aggregating content selected by the user. Additional features are presented on the toolbar in operation **1206** upon the user signing in. One such feature is a bucket. In operation **1208**, the present invention recognizes when the user selects content on a website, which is displayed on the web browser, and drops the content in the bucket. The selected content is automatically added to the portal in operation **1210**, as described above.

While various embodiments have been described above, it should be understood that they have been presented by way of example only, and not limitation. Thus, the breadth

and scope of a preferred embodiment should not be limited by any of the above described exemplary embodiments, but should be defined only in accordance with the following claims and their equivalents.

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Patent application of the inventor of the present invention